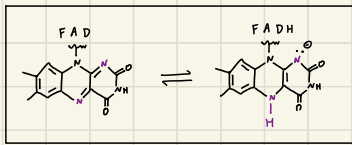


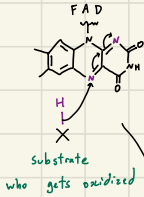
FAD / FMN

lacks a phosphate & adenine
BUT again same chem'ty abt!

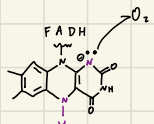


Oxidase

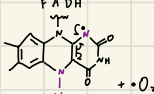
Mechanism 1st Half



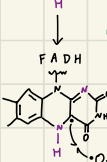
- 1st half is reduction of FAD!
From substrate H- for oxidase
From NADH for monoxygenase



- 1 of top N's e- jumps to O2



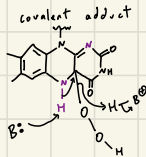
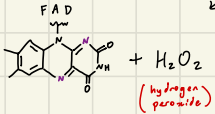
- middle double bond breaks; top double bond forms
→ Carbon radical



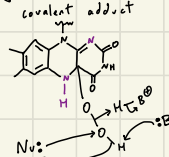
Oxidase

Mechanism 2nd Half End

- H2O2 leaves, Base takes H+ & reset FAD



- O2 radical & C radical bond. also P.T.



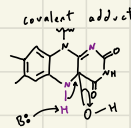
substrate nucleophile who gets an O inserted



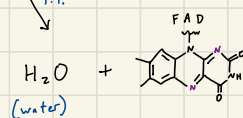
Monoxygenase

Mechanism 2nd Half End

- tail end O gets inserted into substrate, tail end H+ taken by Base, leftover O protonated



- H2O leaves, Base takes H+ & reset FAD



beginning of 2nd half is same for both